#### Fire Behavior Forecast No. 41

Fire Name: Southwest Area 2008	Forecast Valid for: June 11, 2008 - Day
Agency: All Federal and State Cooperators	Date/Time Issued: 6/11/08 @ 0700 MDT
Next Update: June 11, 2008 @ 1000	Signed: Tim Stubbs, Fire Behavior Analyst

This is a general fire behavior forecast covering the entire Southwest Geographic Area. It is designed to provide wildland fire managers with an overall view of fire behavior potential and to help wildland firefighters with the fire order "initiate all actions based on current and expected fire behavior". Firefighters must use onsite observations and spot weather forecasts to calculate site-specific fire behavior for individual wildland fires. Fire behavior spread rates describe only surface fire conditions and do not factor crowning or spotting.

#### FIRE WEATHER SUMMARY:

(Click Maps to Enlarge)

See the Fire Weather Forecasts for each SWA Fire Weather Zone here: Interactive Fire Weather Forecast Map for Southwest Area

# \*\*Red Flag Warnings/Fire Weather Watches:

......Red Flags Warnings are in effect for Northeast Arizona, all of New Mexico, and portions of West Texas for hot, very dry, and very windy conditions.

Fire Weather Zone Warnings/Watches

..... For warning/watch statements see: National Fire Weather Page

\*\*Haines Index: THE HAINES INDEX WILL BE LOW TO
MODERATE BECOMING HIGH IN PORTIONS OF NEW MEXICO.
FOR THE HAINES INDEX IN YOUR AREA SEE THE GRAPHIC>>



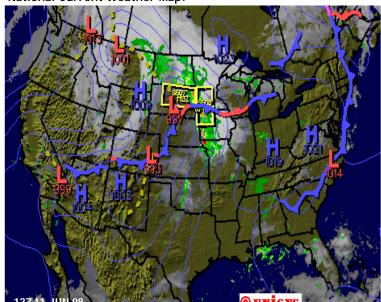
# \*\*Fire Weather Maps for Today and Tomorrow:

weather map	Day 2 Fire Weather Outlook
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## \*\*National Current Weather Map/Southwest Forecast NFDRS Fire Danger

( Click maps to enlarge)

National Current Weather Map:



Southwest Forecast NFDRS Fire Danger:

Forecast Fire Danger for Tomorrow

See national precipitation outlooks at <u>U.S. Today's Precipitation Outlook</u>, <u>U.S. Third and Fourth Day Precipitation Outlook</u>, <u>U.S. 5 Day Precipitation Outlook</u>, and <u>U.S. 14 Day Precipitation Outlook</u>

See looping graphics of forecasted Southwest Area weather at Southern Rockies Graphical Weather from NWS

#### \*\*FIRE BEHAVIOR FORECAST:

#### \*\*General Fire Behavior: (Click map below to enlarge)

Windy conditions many areas today will continue to ramp up the fire behavior potential. Fire behavior can be expected to be
MODERATE to ACTIVE in most low country locations and ACTIVE to VERY ACTIVE on mountain slopes. EXTREME fire behavior is
probable most south and west facing mountain slopes later in the day in the form of crown runs in droughty southern timbered
areas, PJ, and brush on slopes aligned with wind.

#### \*\*Specific Fire Behavior:

Arizona: WARM AND DRY. BREEZY TO WINDY.

- The Sky Islands of Southeast Arizona, the foothills from Globe to the Kingman area, and the Hopi Country will have the potential for ACTIVE to VERY ACTIVE fire behavior. **EXTREME** crown runs are possible south on aligned slopes in timber, PJ, and brush. Spotting will be short to medium range south, possibly long range in the higher winds of the north.
- MODERATE to ACTIVE fire behavior potential exists in most of the desert and foothill low country anywhere that cured grass is abundant.

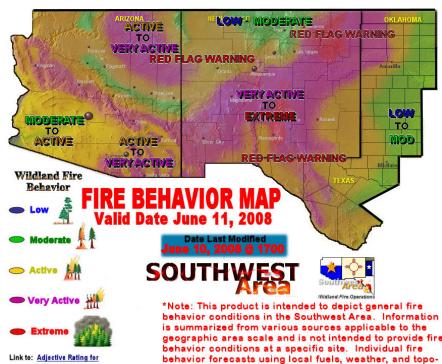
- The Mogollon Rim and North Kaibab area will have LOW to MODERATE fire behavior potential.
- The Colorado River riparian corridor will see a potential for VERY ACTIVE fire behavior in cattails and salt cedar.

New Mexico: WARM AND DRY. WINDY.

- In the mountains of Southern New Mexico ACTIVE to VERY ACTIVE fire behavior is likely in most surface fuels. In the mid elevation timber, PJ, or brush in alignment with afternoon winds **EXTREME** crown runs are possible on aligned slopes in timber, PJ, and brush. Spotting will be medium to long range.
- Fire behavior potential in many low country areas could also reach VERY ACTIVE levels.
- LOW to MODERATE fire behavior potential will persist in the higher northern mountains.
- The Lower Rio Grande and Pecos River corridors have a potential for VERY ACTIVE to EXTREME fire behavior in the bosques, especially in salt cedar.

West Texas: WARM AND DRY, WINDY.

 Fire behavior potential will be ACTIVE to VERY Fire Behavior ACTIVE in the Guadalupe/Delaware/Diablos/Viejas Mountains areas and adjacent plains and on the Marfa Plateau.



# \*\*Observed Fire Behavior:



<< EXTREME fire behavior reported 6/2 on the Kincaid Fire in NM w/ 75' flame length in salt cedar, spotted to 1/2 mile (thx IC Art Arias)>>

On June 4, 2008 EXTREME fire behavior erupted in the Sacramento Mountains on the Rogers Pasture Fire. This was the first day in 20 years that the ERC exceeded 90 (100), the average wind speed exceeded 15 (22), the minimum RH was less than 10% (9), and the average temperature was more than 75 (75.3). Tomorrow, June 11, will also approach these critical levels in the Sacramentos.....



graphy observations must be used for specific fires.

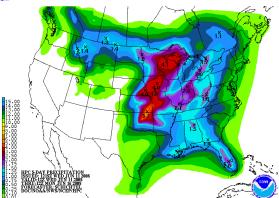
# \*\*Extended Fire Behavior Outlook:

(see also 7 Day Significant Fire Potential and 7 Day National Significant Fire Potential Map).

• Thursday and Friday will be a relative break in the weather action with somewhat cooler temperatures and much lighter winds. Fire behavior will relax accordingly.

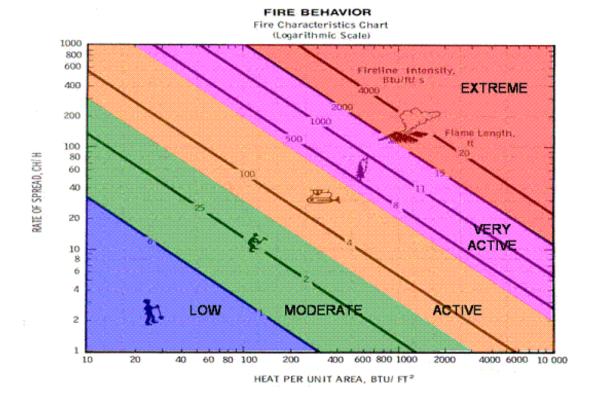
The weekend will be seasonally hot and dry with the next round of windy weather and Red Flags expected in the midweek next week timeframe. We can expect this general pattern to continue for at least the next two weeks.

- See Extended Weather Graphics for the next few days expected weather.
- See U. S. 5 Day Precipitation Outlook for the longer term precipitation outlook. Notice that no precipitation is in the picture for AZ and NM>>>>>
- See the Current U.S. Drought Monitor for current drought information.



### \*\*Adjective Ratings for Fire Behavior:

(click chart below for paper on Adjective Ratings for Fire Behavior)



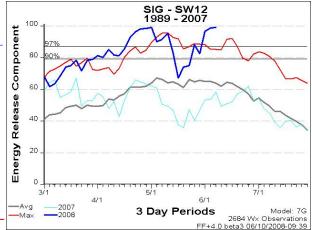
# \*\*Energy Release Component Charts:

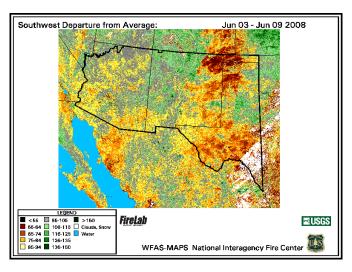
ERC is a very good indicator of the condition of fuels and the depth of drought if calculated properly. View Southwest Area ERC Charts created recently (5/28) here: Southwest NFDRS Station Link Map and at ERC Thumbnails.

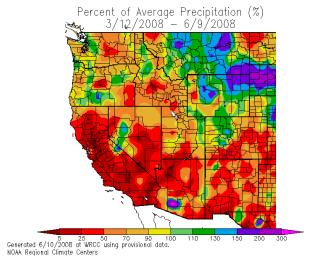
- ERC's for many <u>Southeast New Mexico and West Texas stations</u> are hovering at or above the 90th percentile, a few above the 97th percentile. <u>Click to view the current chart for the Sacramento Mtns, now</u> at an all time level>>>
- The <u>ERC for the Southwest Area as a whole</u> rebounded quickly due to recent very hot and very dry conditions and then dropped slightly due to moisture received. With the forecast of no rain for the next 5 days it should quickly rebound to close to the 97th percentile. (<u>Today's Chart</u>)
- Click here for Energy Release Component Forecast Map
- Click here for access to the National Fuel Moisture Database.



(Click maps to enlarge)







The "Percent of Average Precipitation Map" shows areas with more than average precipitation for the last 90 days rated as 125% or higher. Areas with less than average precipitation are shown as 75% or lower. Areas rated between 75-125% are near average. For observed fuel moisture values from around the Southwest Area see also National Fuel Moisture Database.

### \*\*Air Operations:

- High winds may make the lee side of ridges a difficult place to be . Tstorms may present challenges in West Texas.
- See Estimated Maximum Density Altitude for a general reference chart of density altitude in your area.

### \*\*Safety:

- EXTREME and unforgiving fire behavior is again in the forecast. Remember your LCES through all tactical operations.
- See the Southwest Area Fire Behavior Advisory for the EXTREME fuel conditions in many southwest forests and grasslands.
- A <u>Southern Arizona Fuels and Fire Behavior Advisory</u> for bufflegrass and <u>Map of Affected Area</u> has also been issued.
- See Avra Valley Bufflegrass Prescribed Fire for pictures of bufflegrass fire behavior.

### \*\*Validation and Feedback:

Please contact the SWCC Predictive Services Group and provide us feedback on the accuracy of these forecasts. Your observations about general fuel conditions and observed fire behavior help us validate the accuracy of our forecasts so we can relay the best information to the field. Our bottom line and the reason we are here is to provide for the safety of firefighters.

Tim Stubbs, Fire Behavior Analyst SWCC Predictive Services Group

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See also Texas Forest Service Morning Briefing for a power point show of fire weather/behavior graphics, etc.

#### BASE ALL ACTIONS ON CURRENT AND EXPECTED BEHAVIOR OF THE FIRE

See: Fuel Models Used and Benchmark Behave Run Graphics for metadata in support of fire behavior determinations

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